

Remarks/Arguments

Claims 1-15, 17-37, 39-42, 68, and 77-91 are pending in this application. In response to a restriction requirement, Claims 16, 38, 43-67, and 69-76 have been canceled. Additionally, Applicants have amended Claims 25 and 31 and added new Claims 80-91.

In the October 20, 2004 Office Action, claims 1, 26, and 27 were rejected under 35 U.S.C. §102 (b) as being anticipated by WO 97/41180 A1 to Ram *et al.* Claims 3, 4, 6-8, 28, 29, and 31-33 were rejected under 35 U.S.C. §103 (a) as being obvious over Ram in view of U.S. Patent No. 4,946,269 to Magdassi and U.S. Patent No. 6,129,012 to Dietz. Claims 5 and 30 were rejected under 35 U.S.C. §103 (a) as being obvious over Ram in view of Magdassi and Dietz, in further view of U.S. Patent No. 4,557,195 to Phlipp. Claims 12 and 13 were rejected under 35 U.S.C. §103 (a) as being obvious over Ram in view of Magdassi and Dietz, in further view of U.S. Patent No. 4,329,378 to Tarumi. Claims 21 and 22 were rejected under 35 U.S.C. §103 (a) as being obvious over Ram in view of Magdassi and Dietz, in further in view of JP 07-245499 A to Sanyo. Claims 1, 3, 4, 6-9, 26-29, and 31-34 were rejected under 35 U.S.C. §103 (a) as being obvious over U.S. Patent No. 6,315,410 B1 to Doshi in view of Ram in further view of Magdassi and Dietz.

Further, Claims 2, 10, 11, and 35-37 were rejected under 35 U.S.C. §103 (a) as being obvious over Doshi in view of Ram, in further view of Magdassi and Dietz, in further view of U.S. Patent No. 5,219,497 to Blum. Claims 5 and 30 were rejected under 35 U.S.C. §103 (a) as being obvious over Doshi in view of Ram, in further view of Magdassi and Dietz, in further view of Phlipp. Claims 12, 13, and 15 were rejected under 35 U.S.C. §103 (a) as being obvious over Doshi in view of Ram, in further view of Magdassi and Dietz, in further view of Tarumi. Claim 14 was rejected under 35 U.S.C. §103 (a) as being obvious over Doshi in view of Ram, in further view of Magdassi and Dietz, in further view of Tarumi, in further view of Blum. Claims 21, 22, and 77 were rejected under 35 U.S.C. §103 (a) as being obvious over Doshi in view of Ram, in further view of Magdassi and Dietz, in further view of Sanyo. Claim 39 was rejected under 35 U.S.C. §103 (a) as being obvious over Doshi in view of Ram, in further view of Magdassi and Dietz, in further view of JP 63-274515 A to Nabitasu KK.

Additionally, in the October 20, 2004 Office Action, Claims 25, 31, and 32 were rejected under 35 U.S.C. §112, second paragraph, as indefinite and the drawings and specification were

objected to for various informalities and minor errors. Further, Claims 1, 3, 4, 6-9, 12-15, 26-29, and 31-34 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being obvious over Claims 1-3, 5, 11, and 23 of copending Application No. 10/712,704 in view of Magdassi and Dietz. Claims 2, 10, 11, and 35-37 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being obvious over Claims 1-3, 5, 11, and 23 of copending Application No. 10/712,704 in view of Magdassi and Dietz, in further view of Blum. Claims 5 and 30 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being obvious over Claims 1-3, 5, 11, and 23 of copending Application No. 10/712,704 in view of Magdassi and Dietz, in further view of Phlipp. For the reasons set forth below, Applicants respectfully request reconsideration and immediate allowance of this application.

Drawing Objections

The drawings were objected to for failing to include reference numbers 804 and 830 in the drawings although mentioned on page 24 of the specification. Additionally, the Examiner objected to the drawings and for including reference numbers 836 in Fig. 8; 914 and 915 in Fig. 9; 310, 318, and 320 in Fig. 3; and reference letter "S" in Fig. 14A, although not mentioned in the specification. Applicants have amended Fig. 8 to include reference number 804. Reference number 830 is shown in Fig. 8 as originally filed. Applicants have deleted reference number 836. Additionally, Applicants have amended Fig. 3C to delete reference numbers 318 and 320. Reference number 310 is described on page 14, line 16 of the specification. Applicants have amended the specification on pages 3 and 24 as listed above to incorporate reference letter S and numbers 914 and 915 respectively. Applicants submit that these amendments do not add new matter and respectfully request that the drawing objections be withdrawn.

Specification Objections

The Examiner objected to the Abstract of the disclosure and the disclosure on pages 27 and 29 for typographical errors. Applicants have amended the Abstract and specification to correct the errors.

Claim Rejections Under 35 U.S.C. § 112

The Examiner rejected Claims 25, 31, and 32 under 35 U.S.C. § 112, second paragraph, for insufficient antecedent basis. Applicants have amended Claim 25 to depend from Claim 23 and Claim 31 to depend from Claim 27. Accordingly, Applicants respectfully submit that Claims 25, 31, and 32 are in condition for allowance and request withdrawal of the rejections.

Claim Rejections Under 35 U.S.C. § 102

The Examiner rejected Claims 1, 26, and 27 as being anticipated by Ram. Applicants respectfully submit that Ram fails to teach, describe, or suggest each recitation of independent Claims 1 and 26. In particular, Ram fails to teach a coating solution “which imparts scratch-resistant properties to the optical device” as recited by Claims 1 and 26. The Examiner cites page 3, lines 21-30 of Ram as teaching these recitations. Page 3, lines 21-30 of Ram states, “[t]he prints are also abrasion resistant so that articles (e.g. ophthalmic lenses) that are imprinted can be safely packaged and shipped.” Applicants submit that “abrasion resistant” as applied to the ink prints taught by Ram is separate and distinct from “scratch resistant” as applied to lens coatings recited in Claims 1 and 26.

“Abrasion resistant” as applied to the ink prints of Ram refers to the quality of ink being such that the markings printed on the lenses resist being rubbed off when packaged. “Abrasion resistant” thus does not encompass a coating on a lens that provides the lens with improved scratch-resistance, which these claims specify. To this end, Applicants note that Ram itself distinguishes between the printed ink markings taught by Ram and separate coatings known in the art to provide abrasion or scratch resistance. “A further feature is that the aqueous ink composition can imprint patterns on ophthalmic lenses that are uncoated, coated for abrasion resistance and/or anti-reflectivity. Plastic lenses are often coated with, for example, films derived from polysiloxane, acrylate, epoxy, or urethane based compounds for abrasion resistance” Ram, page 4, lines 3-8. Therefore, the fact that Ram teaches printing on these abrasion-resistant coatings shows that the printing ink and protective coatings are two distinct items, which are not used for the same purpose.

In conjunction, Ram teaches a “water-based pad printing ink composition” used “to print alphanumeric patterns on curved or spherical surfaces such as ophthalmic lenses.” See Ram, title

and abstract. This printed ink does nothing to enhance the scratch-resistant properties of the lenses. In fact, the ink does not even come into contact with the vast majority of the surface area of the lenses and the ink that is printed on each lens is intended to be used for manufacturing purposes and removed prior to consumer use. Page 4, lines 13-18 of Ram states:

In the case of ophthalmic lenses, the markings are used in the production of lens products. Specifically, the markings identify reference points on a lens, e.g., fitting cross, prism point, near measurement etc., which guide laboratory personnel in grinding, polishing and otherwise fitting the prescription to that required for the final eyeglass product.

The markings taught by Ram are intended to be removed after manufacturing of the lenses, which is easily done with water as discussed below. Since the markings typically appear in the vision zone of the lenses, if they are not removed, the markings would interfere with the function of the eyeglasses containing the marked lenses. Therefore, Applicants submit that small markings, easily washed off with water, used to mark precise reference points on lenses, do not “impart scratch resistant properties to the optical device” as recited by Claims 1 and 26.

Applicants further submit that even at the precise reference points marked on a lens as taught by Ram, the markings would not provide increased scratch-resistant properties as taught by the present invention and as understood by those skilled in the art of eyeglass lens manufacturing and spectacle fitting and dispensing. Ram teaches that the markings printed on ophthalmic lenses are easily removed using only water. Page 4, lines 1-2 states, “[a]nother feature of the invention is that the imprinted ink marks can be readily removed by wiping with cold water.” In contrast, scratch-resistant coatings are designed to provide protection to the lenses on which they are applied for the life of the lenses, without being removed using water or any other method.

To provide further clarity to this issue, Exhibit A is an article discussing scratch-resistant coatings for lenses and the benefits provided by such coatings. Applicants submit that it is clear from a reading of Exhibit A that scratch-resistant coatings applied to lenses, which Claims 1 and 26 specify, offer scratch protection and increased durability to increase the life of the lenses. It is equally clear that water-soluble markings printed at precise locations on a lens, or on the

scratch resistant coating of a lens, for the purpose of aiding a laboratory technician in manufacturing the lens is entirely distinct from a removable coating that imparts scratch-resistant properties to a lens as known in the art.

Because independent Claim 26 is allowable over Ram, its rejected dependent claim, Claim 27, is likewise allowable. *See In re Fine*, 5 U.S.P.Q.2d 1569, 1600 (Fed. Cir. 1988) (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”). Therefore, for at least these reasons, Applicants respectfully submit that Claims 1, 26, and 27 are allowable over Ram.

Claim Rejections Under 35 U.S.C. § 103

Claims 21 and 22 were rejected as being obvious over Ram in view of Magdassi and Dietz, in further view Sanyo. The Examiner cited Sanyo as rendering obvious the acts of “placing a screen over the optical surface” and “pressing the transfer pad to the optical surface so as to transfer the coating solution from the deformable body of the transfer pad to the optical surface” as recited by Claim 21. Applicants respectfully submit that Sanyo fails to teach, suggest, or describe these recitations. The Abstract of Sanyo describes pressing a transfer pad onto a screen mask, transferring a fluid pattern *from the mask onto the transfer pad*, and pressing the pad to a board. This differs from placing a screen over the optical surface, pressing the transfer pad to the optical surface, and transferring the coating solution from the transfer pad to the optical surface. That is, using the method of Claim 21, the coating is transferred from the pad to the optical surface through the screen, whereas Sanyo teaches a fluid being transferred from a screen to a transfer pad and then to a surface.

By transferring the coating solution onto the optical surface through a screen as claimed, the rate at which the coating solution passes through the screen to the optical surface is controlled, resulting in a coating layer with a better uniformity. *See application*, page 22, lines 5-12. Sanyo teaches transferring fluid from a screen to a transfer pad. One skilled in the art would not have been motivated by the teaching of Sanyo to modify a process of the combination of Ram, Magdassi, and Dietz to use a screen through which a coating is pressed since none of the cited art, including Sanyo, teaches or suggests pressing a coating solution through a screen. For at least this reason, Claim 21 is allowable over Ram in view of Magdassi and Dietz, in further

view Sanyo. Because independent Claim 21 is allowable over the cited art, its rejected dependent Claim 22 is likewise allowable.

Additionally, Claims 21, 22, and 77 were rejected under 35 U.S.C. §103 (a) as being obvious over Doshi in view of Ram, in further view of Magdassi and Dietz, in further view of Sanyo. For the same reasons discussed above, Claim 21 is allowable over the cited art, namely Sanyo. Because independent Claim 21 is allowable over the cited art, its rejected dependent Claim 22 is likewise allowable. Independent Claim 77 recites, “placing a screen over the optical surface” and “pressing the transfer pad against the screen so as to transfer the coating solution from the transfer pad to the screen and to the optical surface.” For the same reasons discussed above with respect to Claim 21, Sanyo’s teachings of transferring fluid from a screen to a pad would not motivate one skilled in the art to modify a combined process that does not use a screen to incorporate the recitations of Claim 77. For at least this reason, independent Claim 77 is allowable over Doshi in view of Ram, in further view of Magdassi and Dietz, in further view of Sanyo.

Claims 1, 3, 4, 6-9, 26-29, and 31-34 were rejected under 35 U.S.C. §103 (a) as being obvious over Doshi in view of Ram in further view of Magdassi and Dietz. Applicants respectfully traverse these rejections. The Examiner states on page 14, lines 10-18, of the Office Action:

Further, Doshi does not explicitly teach that the coating solution, “imparts scratch-resistant properties to the optical device”, as required by independent Claims 1 and 26. However, the inks (i.e., coating solution) taught by Doshi comprise various monomeric and/or polymeric materials (see cols. 11-12) and are polymerized onto the lens surface (col. 14, lines 50-57). It is the examiner’s position that the polymerized ink coatings of Doshi would have inherently imparted some “scratch-resistant properties” to the lens (e.g., because a lens with a coating would be at least marginally more “scratch-resistant” than a lens without the coating due to the presence of the coating).

Applicants respectfully disagree. Because a coating exists on a surface material does not imply that the coating imparts scratch-resistant properties to that surface material. If the material of the coating has the same scratch-resistant properties as the surface material, then the coating does not alter the scratch-resistant properties of the surface that it coats. In fact, if the coating has inferior scratch-resistant properties as that of the surface material, then the coating will decrease the scratch-resistant properties of the surface material. As an example, a coating of water on a lens, table, or any other surface will not impart any scratch-resistant properties to the underlying surface.

Doshi teaches printing a pattern on contact lenses using polymerized ink. Polymerization does not imply scratch-resistance. In fact, page 1, line 27 - page 2, line 2 of the present specification states, “[g]enerally, plastic lenses for eyewear have been formed from diethylene glycol bis(allylcarbonate) (“DAC”) which has been polymerized via free radical polymerization. DAC lenses offer relatively high impact resistance, light weight, ease of machining and polishing, and ease of dyeing. However, *DAC lenses do not offer desirable abrasion resistance.*” (emphasis added). Therefore, there would be no motivation for one skilled in the art to use the ink taught by Doshi to impart scratch-resistant properties to an optical device since the optical device has equivalent or superior scratch-resistant properties as the ink. For at least this reason, independent Claims 1 and 26 are allowable over Doshi in view of Ram in further view of Magdassi and Dietz. Because independent Claims 1 and 26 are allowable over the cited art, rejected dependent Claims 3, 4, 6-9, 27-29, and 31-34 are likewise allowable.

Additionally, with respect to the remaining dependent claim rejections not addressed above, Applicants submit that for at least the reason that independent Claims 1, 21, and 26 are allowable over the cited art, dependent claims 2-15, 22, 27-37, and 39 are also allowable over the cited art.

Double Patenting

The Examiner provisionally rejected Claims 1, 3, 4, 6-9, 12-15, 26-29, and 31-34 under the judicially created doctrine of obviousness-type double patenting as being obvious over Claims 1-3, 5, 11, and 23 of copending Application No. 10/712,704 in view of Magdassi and

Dietz; Claims 2, 10, 11, and 35-37 as being obvious over Claims 1-3, 5, 11, and 23 of copending Application No. 10/712,704 in view of Magdassi and Dietz, in further view of Blum; and Claims 5 and 30 as being obvious over Claims 1-3, 5, 11, and 23 of copending Application No. 10/712,704 in view of Magdassi and Dietz, in further view of Phlipp. The present application and copending Application No. 10/712,704 are commonly owned. Accordingly, Applicants hereby submit a terminal disclaimer in compliance with 37 C.F.R. §1.321(c) to overcome the provisional double patenting rejections and respectfully request that these rejections be withdrawn.

Allowable Subject Matter and New Claims 80-91

The Examiner has allowed Claim 68 and indicated that Claims 17-20, 23-25, 40-42, 78, and 79 would be allowable if rewritten in independent form including all of the recitations of the base claim and any intervening claims. Applicants have added new Claims 80-91. Claim 17 has been rewritten in independent form as new Claim 80, including the recitations of previously presented Claims 1 and 12. Claim 23 has been rewritten in independent form as new Claim 84, including the recitations of previously presented Claims 21 and 22. Claim 40 has been rewritten in independent form as new Claim 87, including the recitations of previously presented Claims 26 and 39. Claim 78 has been rewritten in independent form as new Claim 90, including the recitations of previously presented Claims 77 and 78. New Claims 81-83, 85-86, 88-89, and 91 depend from allowable new claims 80, 84, 87, and 90 and include the recitations of claims 18-20, 24-25, 41-42, and 79 respectively. Accordingly, Applicants submit that new Claims 80-91 are in condition for immediate allowance.

Conclusion

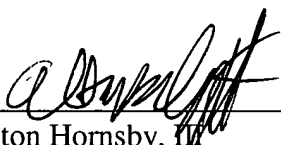
Pursuant to the above amendments and remarks, allowance of the pending application is believed to be warranted. The Examiner is invited and encouraged to contact directly the undersigned if such contact may enhance the efficient prosecution of this application to issue.

Please charge Deposit Account No. 13-2725 in the amount of \$305.00 for a one-month extension of time, Supplemental Information Disclosure Statement, and a Terminal Disclaimer for a small entity. No additional fees are believed to be due; however, the Commissioner is hereby authorized to charge any additional fees that may be required or credit any overpayment to this Deposit Account.

Respectfully submitted,

MERCHANT & GOULD, LLC

Date: February 17, 2005


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Amendments to the Drawings:

The attached sheets of drawings include changes to FIGS. 3C and 8. These sheets, which include FIGS. 3A-3D and FIGS. 7 and 8, replace the original sheets including FIGS. 3A-3D and FIGS. 7 and 8.

Attachment: Replacement Sheets
 Annotated Sheets Showing Changes

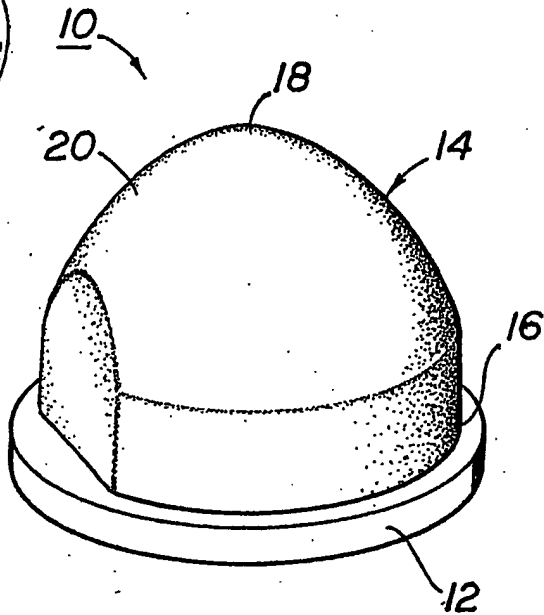


FIG 3A

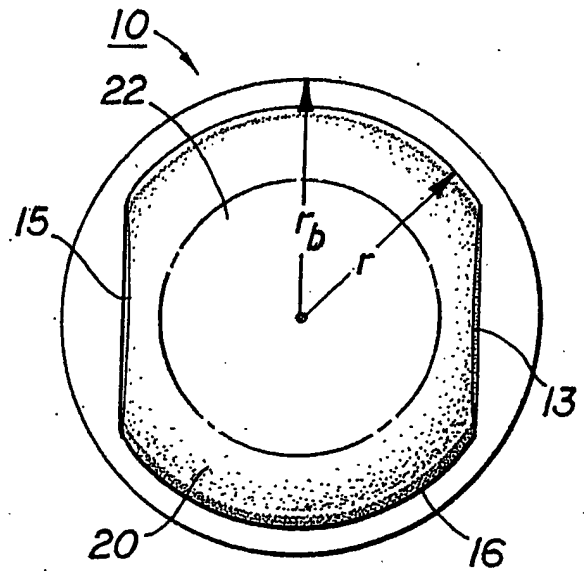


FIG 3B

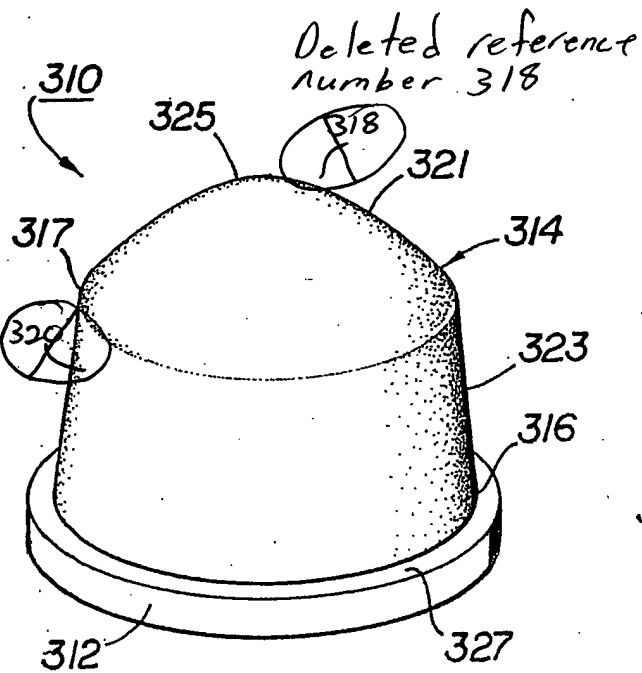


FIG 3C

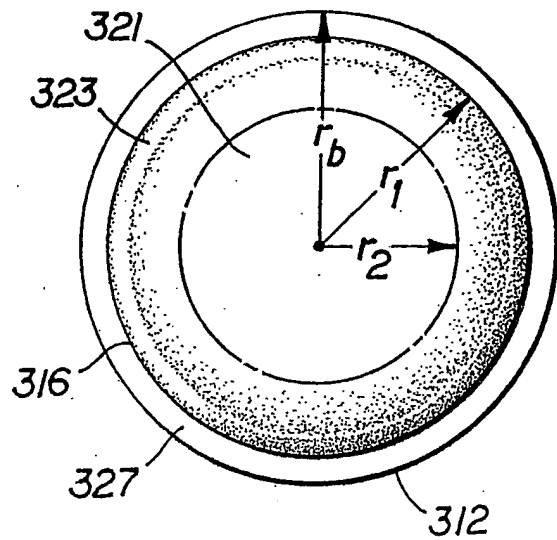


FIG 3D

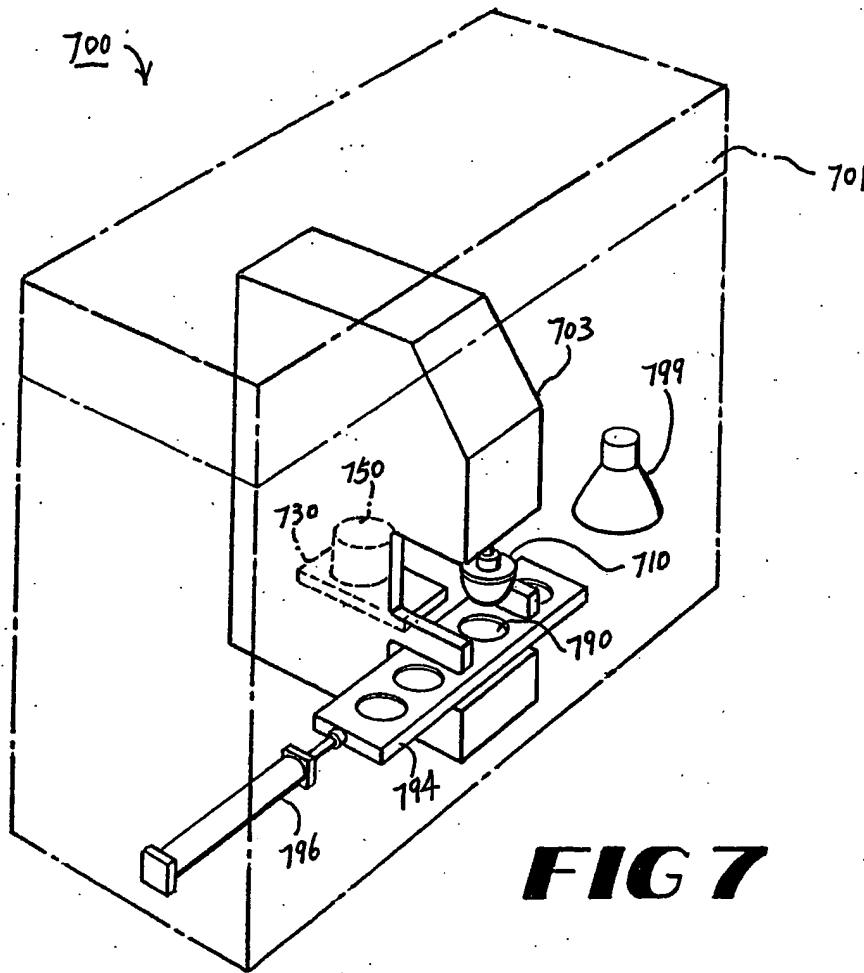
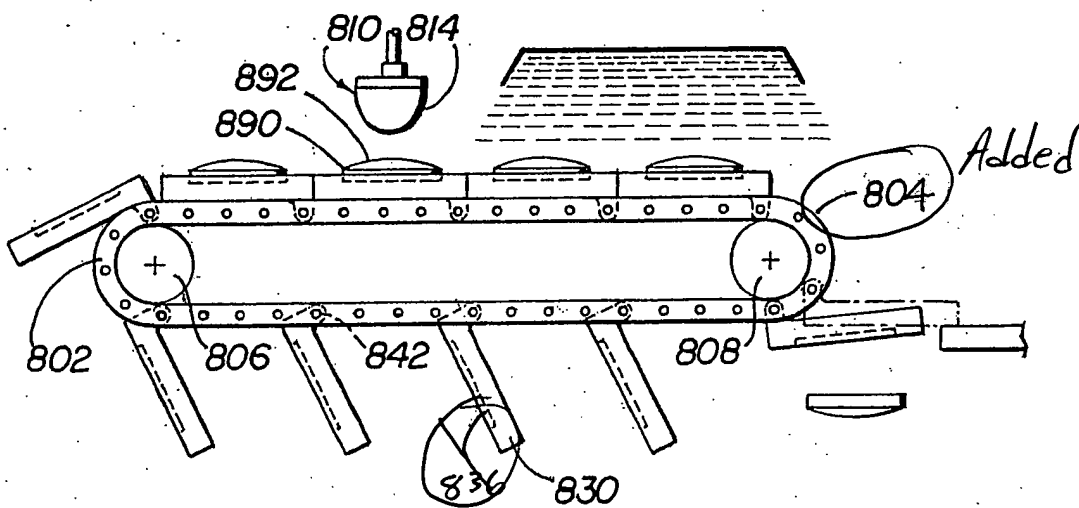


FIG 7



Deleted
reference
number
836 **FIG 8**



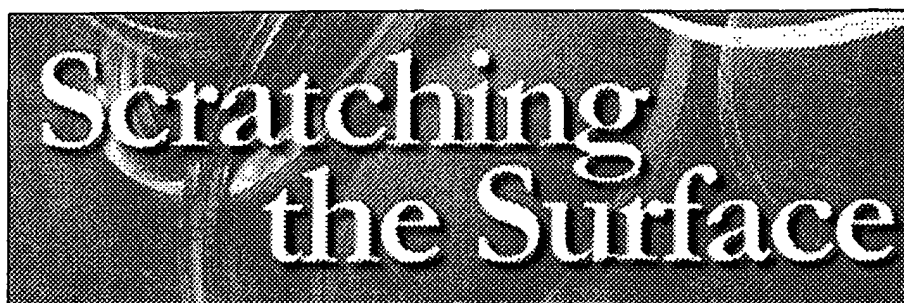
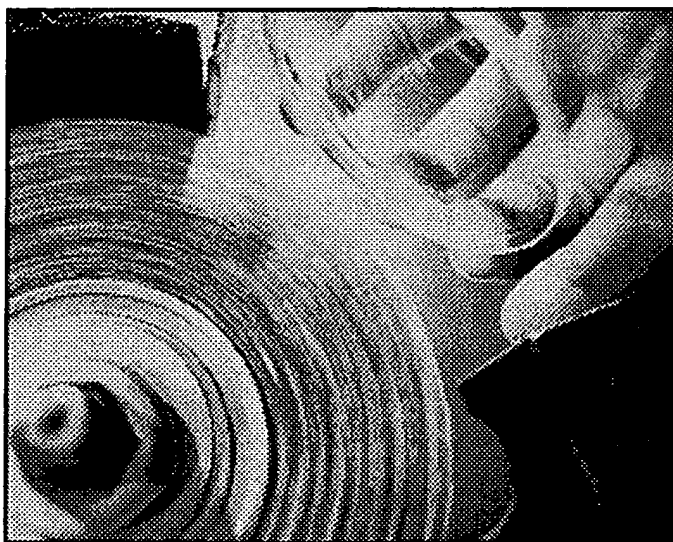


Exhibit A

New products and innovative marketing strategies have helped grow the market for scratch-resistant coatings

By Brian P. Dunleavy


Scratch-resistance may be the buzzword of 1998. In recent months, several new products have been introduced as offering either "superior scratch-resistance" or "scratch-resistant properties."



Dispensers say manufacturers may simply be responding to consumer demand. In recent years, chain retailer LensCrafters has advertised a scratch-resistant lens called DuraLens® in national radio and television spots,

using sandpaper and steel wool to demonstrate the effectiveness of their coated product. Since 1997, a new lens manufacturer, Diamonex, has also been touting its line of "scratch-resistant, impact-resistant" lenses through regional radio and television campaigns—also using steel wool—to bring the message home to consumers.

"People see or hear the commercials and they come in and say, 'I want the scratch-resistant lenses,' "says Steve Rossi, optician at College Point Optometric Associates in College Point, N.Y. "The manufacturers have developed these scratch-resistant products as a way to sell lenses."

Which is not to say the products have not changed in recent years. According to Rossi and others, factory-coated lenses now resist scratches and abrasions better than ever before. As a result of the advancements in technology, scratch-resistant coating, which has been popular since the rise of plastic lenses in the 1970s, has become part of the dispensing mainstream. According to the 20/20 MarketPulse—Premium Lens Survey of Independents 1998, 78.3 percent of conventional hard-resin plastic lenses sold in independent dispensaries in 1997 were treated with some form of scratch-resistant coating. Experts say virtually all of the polycarbonate as well as mid- and high-index lenses dispensed are treated with scratch-resistant coating because their "softer substrates" virtually require it in order to avoid abrasions. 

"We sell scratch-resistant lenses because the coatings work," says Terry Bonds, OD, owner of two dispensing practices in Piedmont and Jackson, Ala. "As these products continue to improve, we notice that fewer and fewer patients are returning to the shop looking to replace scratched lenses. That makes for happier patients and fewer redos for us."

PRODUCTS AND IMPROVEMENTS

How have these new scratch-resistant coatings improved upon their predecessors? According to dispensers, in addition to offering better scratch protection, the key words are multi-dimensional and durable.

In recent years, several manufacturers have developed lens or coating "systems" that include scratch-resistant components. These products, which usually include an anti-reflective (A-R) coating and a hydrophobic coating for easy cleaning, offer wearers a truly multi-dimensional lens product through the use of multi-layered coatings. In addition to an A-R coating, the lenses include a layer (or layers) of scratch-resistant coating and a hard coat for added durability. Some manufacturers have added a cushion "undercoating" or primer coat on high-index lenses that increases the strength of the lens, allowing for reduced center thicknesses that still pass Food and Drug Administration impact-resistance requirements. These new coatings, manufacturers say, have been optimally engineered so that the coating elements (the A-R, the hydrophobic, the scratch-resistant coating, etc.) are more compatible with each other and the lens substrate to which they are applied.

"These new scratch-resistant products definitely benefit us,

because while they are not scratch proof, they do offer better durability."

—Steve Rossi

College Point Optometric Associates

To date, manufacturers have released these products in one of two forms, either as a "coated lens"—such as Seiko's HIP (High Impact) Diacoat high-index, Vision-Ease's Tegra,TM the SR99 from American Optical or Essilor's CrizalTM (see Lens Choices, page 76)—or as a coating product—such as Sola's new UTMC[®] (Ultra-Tough Multi-Coat), Essilor's Reflection-Free[®], Pentax's Pentax A-R, Rodenstock's SolitaireTM, Signet Armorlite's Kodak CleAR or Zeiss' Super ET. Another product making a mark in 1998 has been the Diamonex lens. The company has released a proprietary polycarbonate lens that is treated with a patented high-energy ion beam to give it "glass-like" scratch-resistant properties. At the lab level, wholesalers have also invested in new, state-of-the-art coating equipment, that has improved both the quality of the finished product and the time it takes to deliver it to the patient.

"These new scratch-resistant products definitely benefit us, because while they are not scratch proof, they do offer better durability," says Rossi. "If all the lenses out there were scratch-resistant coated that would be great. It would mean that patients were automatically getting the best possible lenses in terms of durability."

In general, experts say, all of the factory-coated lenses available in the marketplace offer improved scratch-resistance because the new chemistries used in their formation have created "harder" coatings that are more "glass-like" in their scratch-resistant qualities. The coatings, they say, also adhere better to the surface of the lens (i.e., less delamination).

"Compared to five or 10 years ago the coatings are much better," says Dr. Bonds.

PACKAGED GOODS

Unlike many of their predecessors, some of these new scratch-resistant products are also more compatible with cosmetic tints. Experts say this is because they allow the lens to have a more porous surface without compromising the performance of the coating.

"None of the scratch-coated lenses are as easy to tint as a raw lens but it's better than it was," says Dr. Bonds. "We find that now it just takes longer to tint a scratch-coated lens, maybe twice or three times as long, but you get a good tint."

By making the coatings more compatible with other products, manufacturers have enabled dispensers to "package" products such as scratch-resistant coating with cosmetic tints, UV treatments and A-R coatings in an effort to boost add-on sales. According to the premium lens survey, 39 percent of independent dispensers package-price lens treatments. The survey reports that 76.7 percent include scratch-resistant coating in their most popular package. The average retail price of these packages is \$47.81, compared to \$25.61 for scratch-resistant coating only.

"Patients want all of the benefits these products have to offer, but often they don't want to pay the price," says Jane Hart, general manager and optician at Broome Eye Associates in Amarillo, Texas. "These packages allow us to sell more secondary products such as scratch-resistant coating at a lower total cost to the patients. It means more money for us, because we are able to sell more of the product and better eyewear for our patients."

Photographed by NEDJELJKO MATURA for 20/20

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